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10/677,098	09/30/2003	Wesley Cheng	KONAP001	4097
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/677,098	Applicant(s) CHENG ET AL.	
	Examiner BARBARA N. BURGESS	Art Unit 2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 5-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to Amendment filed January 27, 2009. Claims 1-2, 5-23 are presented for further examination.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-2, 5-6, 9-12, 14-17, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bandini et al. (hereinafter "Band", US Patent Publication 2005/0081059 A1) in view of Roach, Jr (US Patent 6,018,577) and further view of Applicant's Admitted Prior Art (hereinafter "AAPA").

As per claim 1, Band discloses a method for reducing the cost of sending messages over an intermittent network of computing devices via one or more communication channels, the method comprising the steps of:

- (a) creating a first message on a first device, the message intended to be sent to a second device over the network via at least one channel (paragraphs [0025-0027], Band teaches users of user stations sending emails via email server to recipients over local and public networks);
- (b) applying a first policy containing one or more rules to determine whether

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to send the first message to the second device, each rule being a function of one or more messaging attributes of messages, channels or the system environment (paragraphs [0011, 0028, 0035, 0043], Band teaches an email relay used to apply filtering policies to incoming electronic messages to prevent certain messages such as SPAM from being sent to recipients. The filters are applied to various parts of the message);

(c) dynamically updating the first policy by sending a second message to the first device, the second message being a system message that results in the addition, deletion or other modification of the rules contained in the policy (paragraphs [0016-0018, 0045, 0053], Band teaches providing updates to the policy to maintain the most current information such as the latest virus while causing modifications to current policies).

Band does not explicitly disclose:

- To reduce the cost of sending messages over the intermittent network of computing devices;
- Multiple communication channels.

However, in an analogous art, Roach teaches reducing the time and cost required to communicate data messages between parties (Abstract, column 2, lines 15-30, column 3, lines 35-45, column 8, lines 10-20).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Roach's reducing the cost of

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sending messages in Band's method enabling a reduction in data message cost to be achieved.

Band, in view of Roach, does not explicitly disclose:

- Wherein a transaction is achieved between a client and a server by breaking up a transmission such that the client does not have to wait until the transaction is completed before relinquishing network connection with asynchronous messaging.

However, AAPA teaches the use of asynchronous messaging between a messaging client and messaging server (page 5, lines 21-29, page 6, page 7, lines 1-20).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate AAPA's asynchronous messaging in Band's method in order to store a message that fails in transmission and automatically retry transmission.

As per claim 2, Band discloses the method of Claim 1 disclose wherein the first device is a server device and the second device is a client device (paragraph [0026-0027]).

As per claim 5, Band discloses the method of claim 1 comprising creating a first transaction on the first device, the first transaction including one or more messages intended to be exchanged with the second device over the intermittent network (paragraphs [0025-0027]).

As per claim 6, Band discloses the method of claim 1, comprising creating a first device queue on the first device, the first device queue reflecting the current status of the first transaction, including which messages of the first transaction have been successfully or unsuccessfully sent or received (paragraphs [0011, 0033, 0035, 0037, 0055]).

As per claim 9, Band discloses the method of claim 1 wherein the first device is a server device and the second device is a client device (paragraphs [0026-0027]).

As per claim 10, Band discloses the method of claim 1, comprising providing bi-directional messaging between wireless/mobile devices and enterprise server applications (paragraphs [0025-0027]).

As per claim 11, Band discloses the method of claim 10, wherein the bi-directional messaging is achieved using a server-initiated push (paragraph [0027]).

As per claim 11, Band discloses the method of claim 11, wherein a transaction is achieved between a client and a server by breaking up a transmission sequence such that the client does not have to wait until the transaction is completed before relinquishing the network connection (paragraph [0035]).

As per claim 12, Band discloses the method of claim 11, wherein the server initiated push comprises one of:
modem signaling, http listening, short messaging system (SMS), polling using an efficient decaying algorithm (paragraph [0013, 0032-0033]).

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As per claim 14, Band discloses the method of claim 1, comprising automatically detecting networks by observing changes in the TCP/IP route table and a default route (paragraph [0041]).

As per claim 15, Band disclose the method of claim 1, comprising determining service providers by using identification servers accessible only in specific networks (paragraph [0014]).

As per claim 16, Band discloses the method of claim 1, comprising forming one or more transmission rules using regular expressions to combine system, message and channel parameters (paragraphs [0049-0050]).

As per claim 17, Band discloses the method of claim 1, comprising generating loosely coupled client-server applications by declarative programming using relating business objects and graphical objects and mapping the objects into messages using properties sheets (paragraph [0040]).

As per claim 20, Band discloses the method of claim 1, comprising communicating using a lightweight LUCID (Logic Up, Consistent Information Down) model (paragraphs [0027-0028]).

7. Claims 7-8, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bandini et al. (hereinafter "Band", US Patent Publication 2005/0081059 A1) in view of Roach, Jr (US Patent 6,018,577) and in further view of Wing (US Patent 6,650,440 B1).

As per claim 7, Band, in view of Roach, does not explicitly disclose the method of claim 1, comprising creating a second device queue on the second device, the second device queue reflecting the current status of a first transaction, including which messages of the first transaction have been successfully or unsuccessfully sent or received.

However, in an analogous art, Wing teaches transmission of fax information using an email message from sending fax device to a receiving fax device. The sending device receives a particular fax message and prepares an email message and transmits the prepared email message along with a first and second confirmation request to the receiving device. Upon receipt of the first response to the first confirmation request from the receiving device, the sending device waits for the second response to the second confirmation request. The responses indicate successful delivery (Abstract, column 4, lines 20-36, column 5, lines 11-20).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Wing's queue reflecting the current status of a first transaction, including which messages of the first transaction have been successfully or unsuccessfully sent or received in Band's method in order to inform the user at the sending device of the status of the transmission of the fax message.

As per claim 8, Band, in view of Roach, does not explicitly disclose the method of claim 1, comprising guaranteeing receipt by the first device of a notification that a

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message of a first transaction sent by the first device was successfully or unsuccessfully received by the second device, even in the event that the first device or the second device loses network connectivity prior to the first device receiving such notification.

However, in an analogous art, Wing teaches transmission of fax information using an email message from sending fax device to a receiving fax device. The sending device receives a particular fax message and prepares an email message and transmits the prepared email message along with a first and second confirmation request to the receiving device. Upon receipt of the first response to the first confirmation request from the receiving device, the sending device waits for the second response to the second confirmation request. The responses indicates successful delivery (Abstract, column 4, lines 20-36, column 5, lines 11-20).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Wing's guaranteeing receipt even in the event that the first device or the second device loses network connectivity prior to the first device receiving such notification in Band's method in order to inform the user at the sending device of the status of the transmission of the fax message.

As per claim 21, Band, in view of Roach, does not explicitly disclose the method of claim 20, comprising sending acknowledgement messages instead of a reply record.

However, in an analogous art, Wing teaches transmission of fax information using an email message from sending fax device to a receiving fax device. The sending device receives a particular fax message and prepares an email message and transmits the

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prepared email message along with a first and second confirmation request to the receiving device. Upon receipt of the first response to the first confirmation request from the receiving device, the sending device waits for the second response to the second confirmation request. The responses indicates successful delivery (Abstract, column 4, lines 20-36, column 5, lines 11-20).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Wing's sending acknowledgment messages in Band's method in order to inform the user at the sending device of the status of the transmission of the fax message.

8. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bandini et al. (hereinafter "Band", US Patent Publication 2005/0081059 A1) in view of in view of Roach, Jr (US Patent 6,018,577) and in further view of Shoaib et al. (hereinafter "Shoaib", US Patent Publication 2004/0205373 A1).

As per claim 12, Band, in view of Roach, does not explicitly discloses the method of claim 1, comprising performing asynchronous messaging, wherein a message is persistent and sent to a next stage without waiting.

However, the use and advantages of performing asynchronous messaging is well-known to one of ordinary skill in the art as evidenced by Shoaib (paragraph [0013]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Shoaib's asynchronous

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messaging in Band's method allowing devices to communicate even if one of the devices is temporarily unavailable.

As per claim 13, Band does not explicitly disclose the method of claim 1, comprising receiving a reply from a server to a client as an asynchronous message to complete the transaction.

However, the use and advantages of performing asynchronous messaging is well-known to one of ordinary skill in the art as evidenced by Shoaib (paragraph [0013]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Shoaib's asynchronous messaging in Band's method allowing devices to communicate even if one of the devices is temporarily unavailable.

9. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bandini et al. (hereinafter "Band", US Patent Publication 2005/0081059 A1) in view of in view of Roach, Jr (US Patent 6,018,577) and in further view of Hind et al. (hereinafter "Hind", US Patent Application Publication 2005/0071358 A1).

As per claim 18, Band, in view of Roach, does not explicitly disclose the method of claim 1, comprising performing conflict-free database synchronization by assigning a master database and designating other databases as slave databases.

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However, the use and advantages of performing conflict-free database synchronization is well-known to one of ordinary skill in the art as evidenced by Hind (paragraph [0010]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Hind's conflict-free database synchronization in Band's method in order to resolve conflict occurring during the synchronization process.

As per claim 19, Band, in view of Roach, does not explicitly disclose the method of claim 18, wherein updates to the slave databases are considered pending until confirmed by the master database.

However, the use and advantages of performing conflict-free database synchronization is well-known to one of ordinary skill in the art as evidenced by Hind (paragraph [0010]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Hind's conflict-free database synchronization in Band's method in order to resolve conflict occurring during the synchronization process.

Response to Arguments

The Office notes the following argument(s):

(a) Roach is a single channel system that uses PSTN and is not about a wireless system with multiple channel communication capability.

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(b) Band fails to show...to reduce the cost of sending messages over the intermittent network of computing devices.

(c) The references do not show wherein transactions are achieved between client and server by breaking up...by using asynchronous messaging.

(d) The suggestion to combine Roach and Band arises from hindsight as taught by the instant application.

(e) There is no suggestion to combine Band with Wing.

In response to:

(a) Applicant's arguments filed have been fully considered but they are not persuasive.

Band teaches a wide area network (WAN) such as the Internet to facilitate communication of email messages to the local network. The policy-based messaging may be part of a private, semi private, public, or mixed network (paragraphs [0014, 0020]).

Therefore, the combination of Roach and Band discloses a wireless system with multiple channel communication capability.

(b) Applicant's arguments filed have been fully considered but they are not persuasive.

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Roach teaches reducing the time and cost required to communicate data messages between parties (Abstract, column 2, lines 15-30, column 3, lines 35-45, column 8, lines 10-20).

Therefore, the combination of Roach and Band discloses reducing the cost of sending messages over the intermittent network of computing devices.

(c) Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

(d) In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

(e) In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re*

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Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Wing's queue reflecting the current status of a first transaction, including which messages of the first transaction have been successfully or unsuccessfully sent or received in Band's method in order to inform the user at the sending device of the status of the transmission of the fax message.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to BARBARA N. BURGESS whose telephone number is (571)272-3996. The examiner can normally be reached on M-F (8:00am-4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Barbara N Burgess/
Examiner, Art Unit 2457

Barbara N Burgess
Examiner
Art Unit 2457

April 20, 2009

/ARIO ETIENNE/
Supervisory Patent Examiner, Art Unit 2457